# The future of VET

– learning from the Nordic countries

Jørgensen, Christian Helms; Stenström, Marja-Leena ; Thunqvist, Daniel Persson ; Tønder, Anna Hagen

*Publication date:*
2013

*Document Version*
Early version, also known as pre-print

*Citation for published version (APA):*
Jørgensen, C. H., Stenström, M-L., Thunqvist, D. P., & Tønder, A. H. (2013). The future of VET: – learning from the Nordic countries. Paper presented at Helix Conference , Linköping, Sweden.

Paper for Symposium at Helix Conference June 13. 2013 Linköping Sweden

# The future of VET – learning from the Nordic countries

**Christian Helms Jørgensen**, Roskilde University, PAES, Department of Psychology & Educational Studies, 4000 Roskilde, Denmark, cjhj@ruc.dk

**Marja-Leena Stenström**, The Finnish Institute for Educational Research, P.O. Box 35, 40014 University of Jyväskylä, Finland, marja-leena.stenstrom@jyu.fi

**Daniel Persson Thunqvist**, Department of Behavioural Sciences and Learning(IBL), Linköpings universitet, 581 83 Linköping, Sweden, daniel.persson.thunqvist@liu.se

**Anna Hagen Tønder**, Fafo, Institute for Labour and Social Research, Pb 2947 Tøyen, 0608 Oslo,Norge, anna.hagen.tonder@fafo.no

**Keywords**: vocational education, school-to-work transition, Nordic comparative.

The four Nordic countries, Finland, Norway, Sweden and Denmark, have different models of vocational education, but share a number of dilemmas for the future development of VET. In all countries, the shift towards a knowledge society has been followed by a significant expansion of general education. The VET system struggles with declining participation rates, decreasing esteem and high dropout rates, except in Finland where VET has increased enrolment. At the same time, VET has an important role to play by linking school-based and work-based learning and by connecting education with the labour market (Wolbers 2007). The successful development of a knowledge society depends not only on higher levels of formal and academic knowledge, but also on the connection of this knowledge with specific and tacit knowledge in order to solve complex and ill-defined problems (Streeck 1992). The apprenticeship model – in a modernised form – is well suited to the provision of work based learning and to connect codified knowledge to problem solving in practice (Guile 2006; Stenström & Tynjälä 2009). But weak linkages to higher education have made VET appear as a dead-end and have contributed to decreasing esteem and participation rates in many countries (Deissinger a.o. 2013). If the VET-system gives priority to work-based learning, specific occupational skills and employability, then it is difficult to achieve entrance qualifications for Higher Education. Developing VET for the future thus involves coping with inherent dilemmas that call for innovative solutions. The purpose of this paper is to explore different ways of managing the common key dilemma of providing 'double accesses' to the labour market and to higher education (HE) in the vocational programmes in the Nordic Countries. The paper will describe the basic conditions for handling this dilemma in the four Nordic countries and give a preliminary assessment of the strengths and weaknesses of this for each country. The paper invites to a discussion of how to explore the dilemma of providing 'double accesses' in a coming comparative research project, and to examine the impact of different institutional arrangements and policies on social and reproduction of gender inequalities and on the esteem of vocational education.

The Nordic countries provide unique opportunities for comparative research in the field of initial vocational education. On the one hand they are characterized by similar societal contexts; on the other hand they exhibit substantial differences in their models of VET. This situation has made the Nordic countries a fruitful

living experiment of diverging forms of VET, in which a variety of significant qualities can be explored in relation to similar societies. All Nordic countries have developed well-organised labour markets, consensual political cultures and universal types of welfare states that have given priority to goals related to equal opportunities and social inclusion (Elvander 2002).

These basic qualities are challenged by the current wave of globalisation, where outsourcing of low-skilled jobs and the increasing requirement for skills and mobility on the labour market provide critical conditions for marginalisation for young people who don't complete any post-compulsory programme of education. In most countries, the shift towards a knowledge society has been followed by a strong 'academic drift', with a significant expansion of general education and HE (Jónasson 2003; OECD 2010:57). This raises the urgent question of how to improve education for "the other half" of a youth group that does not aim for higher education (HE). Vocational education at higher secondary level has been the main pathway to the labour market for the majority of this 'second half' of the youth group, and it is anticipated to remain so in the future.

In all the Nordic countries, initial vocational education has a variety of different, politically defined aims: to qualify for employment in a specific occupation, prepare for future mobility on the labour market, promote competitiveness and economic growth, qualify for studies at the tertiary level of education and prepare for lifelong learning, as well as facilitate the student's development as a person and as a democratic citizen, and in order to contribute to social cohesion (Olofsson & Panican 2008; Antikainen 2006). Furthermore, VET is also expected to be inclusive for weak learners, retain most (preferably all) young people who start in a programme and provide conditions for completion in the form of a degree or a certificate. These diverse aims are to some extent competing or even contradictory (Powell & Solga 2010). For example, being socially inclusive makes it difficult for VET to also be attractive for ambitious students and for high skill companies. Giving priority to work-based learning, specific occupational skills and employability also makes it difficult to achieve HE entrance qualifications for all students. Developing VET for the future thus involves coping with inherent and recurring dilemmas, trade-offs and contradictions.

The Nordic systems of VET differ with respect to their links with the labour market on the one hand, and Higher Education on the other hand. The VET systems also differ regarding their composition of vocational and general qualifications and the amount of specific occupational qualifications offered, the balance between work-based learning and school-based learning, their governance structures, especially the involvement of the labour market partners, the balance between local-central governance and the degree of standardisation or flexibility of the programmes. The systems also differ with regard to the level of segregation in VET regarding gender and the ethnic and socio-economic background of students – and thus with respect to the role of VET in achieving equity in education, as well as on the labour market. These differences mean that the diverse Nordic systems of VET have had different experiences in the past that provide different opportunities to cope with the common future challenges of providing attractive, high-quality programmes that connect school-based and work-based learning and provide access to high-skills employment and link up with HE.

In the following w will give a short analysis of the current situation regarding these challenges in Finland, Sweden, Norway and Denmark. This includes a description of the institutional setup and the actual transition patterns from the VET systems to employment and to HE of VET-graduates. A special interest is to

compare VET-programmes that combine work-based learning and employability with access to HE and the way these programmes have handled the dilemmas.

## Denmark

### *Institutional setup of the Danish VET-system*

In comparison with the other Nordic Countries the Danish VET-system represents the most classical form of a 'dual-corporatist model' (Greinert 1999) based on the tradition of apprenticeship. Work-based learning makes up two thirds of the programmes´ duration of normally four years (the length of the programmes varies from 1½ to 5½ years).

The large majority of the students starts in a school based basic course of ½ - 1 years duration in a vocational college before continuing into the work based main course that they complete in normally 3 – 3½ years. During the main course they attend college in typically 10 – 15 weeks of block release every year.

The social partners have a decisive influence on the VET system through the principle of occupational self-governance that provides the stakeholders in the labour market with key role in managing the system. During their work based training in a company the students' wages and working conditions are regulated through general agreements between the social partners and the students have a formal status of employees whose wages are paid by the employers.

The Danish VET-system has maintained a centralised structure and has limited involvement of local or regional authorities, and the links of the VET-system with the municipalities are weaker than in Norway and Sweden. The content of the programmes and the qualification profile of each occupation is defined by the trade committee on the national level. The trade committees are bipartite organs where the labour market partners regulate the VET programs for each occupation. Their regulatory mandate is quite wide-ranging and is defined in the legal framework for vocational education. It includes the definition and continuous upgrading of the qualifications profiles of the individual programs, specification of their content and curriculum, supervision of the quality of training places and conflict resolution etc. This close involvement of the labour market partners is a warrant of the relevance of the programs for the labour market and this contributes to a high employability of trainees who complete a vocational programme. The VET programs are mainly focussed on specific occupational qualifications that are acquired through learning and socialisation during a training placement in a company. The specific vocational profiles of the programmes make them match closely with the corresponding skilled occupations in the labour market (Juul & Jørgensen 2011).

In contrast to the common Nordic tradition of unified and comprehensive education for all young people at grade 10 to 12, Denmark has retained a selective system with two separate tracks: one the one hand general educational programmes (Gymnasiums) aims at higher education, and on the other hand vocational programmes directed towards the labour market (Jørgensen 2008). The divisions between these two tracks are profound and relate to their respective social recruitment, learning cultures, legal frameworks, and the forms of governance of education. The two types of education also have separate institutions locally: on the one hand the Gymnasiums and on the other hand the vocational colleges that are often located separately in Technical, Business & Commercial, Agricultural and Health Care & Social Work colleges. Access to all programs of the Gymnasium is restricted by requirements of grade point averages in compulsory school. Access to the vocational colleges are open and free as young people have a legal right to be admitted to a VET college, when they have completed compulsory education at grade 9 or 10. The selective system of

higher secondary education with two separate tracks entails a social selection of students according to the socio-economic status of their parents. Tracking tends to reduce equality of educational opportunities in the transition from school to work (Hanushek and Wößmann 2006). In addition the composition of students in the VET programmes is highly gender biased. Around half of all approximately 100 vocational programmes are mono-gendered, in the sense that the gender in majority makes up more than 90% of the students in the programmes. This is related to the fact that many of the occupations that the programmes are aiming at, are highly gendered (car mechanic, hairdresser).

## *Transitions from Danish VET to HE and to the labour market*

Entry into the general track has continued to rise since the 1960ies, but still almost one half of every youth cohort start in a vocational programme. Only one third of a youth group complete a vocational programme, since these programmes have a high dropout rate. Those who do complete a vocational programme generally have a high employment rate and have fast ***access to the labour market*** because almost half of the students continue their employment in the training company. The role of the VET-system in the national transition system (Raffe 2008) provides young people with an effective transition from education to work, because the transition is integrated into the programmes´ work based training. As a consequence Denmark has a low level of youth unemployment compared to other western countries (Gangl 2001). In addition the average incomes over the life course for skilled workers in some occupations exceed the income of graduates with higher education at Bachelor level.

People who have completed a vocational programme (skilled workers) have a high mobility in the labour market. Mobility is supported by the standardised qualification profiles that give access to skilled jobs in many different companies in the occupationally segmented labour markets. Vertical and horizontal mobility into other kinds of jobs and occupations are also common, as is shown in studies of the career patterns of skilled workers (Christensen & Jørgensen 2009). Five years after completing a vocational programme the former students had on average shifted more than one time into another industrial area (eg. from manufacturing to service). In addition a significant share had been employed in supervisory or managerial positions. This indicates that skilled workers in many occupations have good career opportunities based on high job mobility and access to work based learning. This is related to the prevalence in Denmark of small-scale and craft based forms of production where workers on the shop floor have a high degree of autonomy (Gallie 2009).

***Access to higher education*** from the VET-system is difficult for students since the VET-programmes normally don't qualify for entrance into higher education except in a limited range of occupational areas (eg. carpenters to building technicians). Formally it is an option in the Dual system of VET to qualify for higher education by taking supplementary courses, but very few vocational students make use of this option. In addition it is possible to take courses in adult education after completing a VET-programme and thus qualify for higher education, but few do this. Register based studies of cohorts from 1991 till today even show that the rate of progression from VET to higher education has declined over the last two decades especially in the traditional male occupations in the building trades progression rate fell from 9% to 3% and in manufacturing from 12% to 5% (Fredriksen, Hersom & Jørgensen 2012). This can partly be explained by the relatively favourable position of skilled workers on the labour market with regard to wages, employment and career opportunities. But the declining degree of permeability between VET and higher education adds on to the falling esteem of VET and contributes to the image of VET as a 'dead end' in relation to higher education.

### *Current challenges and innovations in Denmark*

The declining influx of applicants and the decreasing esteem of VET among young people constitute a major challenge for the future of the Danish VET-system. On the one hand VET provides smooth and easy access to the labour market and to further work based careers, but on the other hand students in VET are diverted away from higher education at an early age and have limited opportunities to progress to the tertiary level in adult life. The strength of VET, close links with the labour market, also seems to be a major weakness, and this constitutes a difficult dilemma for policy makers. VET not only increasingly appears as a 'dead end', it also increasingly appear as the option for only those who don't qualify for the academic track, the Gymnasiums. The active labour market policy and the obligation of all young people to be in education, employment or training adds on to this, since many disadvantaged students are 'coerced' to take up vocational education. This is part of the explanation for the high dropout rates in VET.

***Innovations:*** One of the measures to deal with this dilemma has been the invention of a new hybrid programme combining the strengths of both tracks, the academic and the vocational. This programme, called *eux*, combines longer periods of work based training with certification in academic subjects taken during the school based periods of the programme. A pilot programmes from 2005 and the new hybrid programme introduced in 2010 have demonstrated the opportunities as well as challenges for building a hybrid pathway into the dual system. The challenges relates to the task of combining a three year general programme (gymnasium) with a four year vocational programme in one hybrid programme. If the hybrid programme is too long it will be difficult to attract students – five years proved to be too long in the pilot projects. If the programme is made shorter, this will make the hybrid programme manageable only for a small elite of students.

## Finland

### *Institutional setup of the Finnish VET-system*

The Finnish upper secondary level (post compulsory level) education is divided into general (academic) education and vocational education and training. General upper secondary schools provide a three-year general education programme which leads to the national matriculation examination. Vocational upper secondary schools (initial vocational education) also provide three-year study programmes, and these lead to vocational qualifications. Students in upper secondary schools have also the option of studying for both a vocational qualification and the matriculation examination at the same time (double qualification). Both forms provide eligibility for further studies at polytechnics (universities of applied sciences, UAS) and universities (Ministry of Education, 2012.)

Initial vocational education and training (VET) is built on the basic education syllabus. Vocational qualifications consist of 120 credits (including 90 credits of vocational subjects, 20 credits of general core subjects and 10 credits of elective studies) and takes three years to complete. In Finland, vocational qualifications can be completed in upper secondary VET, apprenticeship training or as competence-based qualifications. The majority of young learners complete their upper secondary vocational qualifications at vocational institutions. Vocational qualifications may also be completed as apprenticeship training, most apprentices are adults. Furthermore, upper secondary vocational qualifications may be obtained through competence tests (completed by adults) independent of how the vocational skills have been acquired (ReferNet Finland, 2012).

In Finland prior to the turn of the millennium initial (upper secondary) vocational education was mainly organised by vocational schools with few links between education and working life. Since 2001, among the central reforms undertaken in Finnish VET has been the incorporation into the curriculum of on-the-job learning (work-related learning) lasting at least six months (20 credits). On-the-job learning is guided and goal-oriented study at the workplace. Efforts to achieve closer cooperation between VET and working life also include what are known as vocational skills demonstrations (Stenström, 2009). At different points during their training in initial VET, students demonstrate the skills they have learned in tests arranged as either practical work situations or as practical assignments. These skills demonstrations assess how well the student has achieved the competencies needed in the labour market. Vocational skills demonstrations represent a new form of student assessment, in which cooperation between education and working life plays a central role and which brings together representatives from working life and teachers (Räkköläinen, 2005; Stenström, Laine & Kurvonen, 2006).

## *Transitions from Finnish VET to HE and to the labour market*

The position of vocational education in the Finnish school system has changed in recent years. The popularity of vocational education and training has increased since the early 2000s. The year of 2009 was the first year when the majority of applicants listed a VET programme as their primary choice (ReferNet Finland, 2011). The following facts may explain the change: 1) the upper secondary vocational education and training has been developed towards the world of work during the last decade, 2) there has been several campaigns organised by the Ministry of Education and Culture and social partners to improve the image of vocational education, and 3) Skills competitions, like The Finnish National Skills Competition "Taitaja" organized yearly, have also increased popularity of VET (ReferNet Finland, 2011).

More than half of those completing a curriculum-based upper secondary vocational qualification (school-based programmes) find employment immediately: 56 % of those who completed a vocational qualification in 2008 were gainfully employed at the end of 2009, while unemployed people accounted for 18 %. Another 11 % were full-time students and 15 % fell within the group 'others' (those doing their military or non-military service, home-makers or pensioners) (ReferNet, 2012; Statistics Finland, 2012). The follow- up study indicated that 68 % of the students starting in vocational education in 2004 and graduated until 2009 were employed, 16 % were unemployed, 10 % were full-time students and 5 % fell within the group 'others' at the end of 2009 (Stenström, Virolainen, Vuorinen-Lampila & Valkonen, 2012).

***Access to higher education:*** Finnish education policy has paid plenty of attention to the transition between different levels of education. There are no dead ends between different levels of education. About 13 % of the cohort of starting in vocational education in 2004 has entered from VET to University of Applied Sciences in three years after their graduation (Stenström et al., 2012). There seem to be differences between the background factors. Women entered UAS more often than men. Also previous education showed a connection to entering UAS. Those having already a vocational qualification before pursuing another one ended up continued their studies more often than others.

## *Current challenges and innovations in Finland*

Although the attraction of vocational education and training has been steadily growing, there are some challenges to develop the Finnish vocational education and training.

Dropping out is reflected in slower transition to employment, possible decrease in educational attainment, and general experience of failure for the young people dropped out from education and consequently at risk of exclusion (Komonen, 2012; Stenström et al., 2012). Dropout has been decreasing since the beginning of the 21st century, but the absolute number of dropouts has not fallen much, nor has the number of students who gain their qualifications in the target time been growing as desired (Ministry of Education and Culture, Finland, 2012). Of the students starting in vocational education in 2004, almost a quarter (23%) discontinued their studies at some point in 2004–2009. Because this study involved a follow-up of the starting cohort throughout the span of their VET programmes, the overall drop-out rate clearly exceeds the annual rate (Statistics Finland, 2012). During the academic year 2010/2011, a total of 9% of students attending a VET qualification discontinued their studies and did not resume them in any other education leading to a qualification or degree (Statistics Finland, 2012).

To tackle the exclusion of young people, the Finnish Youth Guarantee (Nuorten yhteiskuntatakuu 2013; Ministry of Education and Culture, 2013) was launched in the beginning of 2013. It will offer everyone under the age of 25, as well as recent graduates under 30, a job, on-the-job training, a study place or rehabilitation within three months of becoming unemployed. Its intention is to prevent young people from being excluded from society.

In addition, the preparatory instruction has been developed to lower the threshold to education and training and to reduce drop-out. The aim of this instruction is to improve students' capacities to obtain a place in vocational education and training. Instruction takes six months between basic education and vocational education and training (ReferNet, Finland, 2012).

In order to respond to the requirements of the changing world of work the flexibility of vocational qualifications has been further increased, for example, diversifying opportunities to include modules from other vocational qualifications (further and specialist vocational qualifications) or UAS degrees (ReferNet, Finland, 2012). Furthermore, students will be supported by implementing flexible and supportive practices such as improved recognition of prior learning.

## Sweden

### *Institutional setup of the Swedish VET-system*

In contrast to the Danish `dual-corporatist model`, in Sweden VET is school-based and comprises a hybrid between two different but overlapping educational cultures, the academic and the vocational. The bulk of initial vocational education for occupations in industry, commerce, and in the state sector is provided by the *gymnasieskolan*, i.e. the upper secondary level of an integrated Comprehensive School system. Currently there are 18 national programmes (representing various profiles), 13 of which are vocationally oriented. The VET-programmes cover three years and are typically 85% school-based. Apprenticeship is one alternative within the current VET-system (see information about the latest reform 2011, below), but the number of apprentices at present is small.

The VET-system in Sweden is ambitious: its institutional/educational goal is to provide ´double access´: i) to the labour market, and ii) to the higher education. All students (typically 16-19 year olds) are required to pass eight academically-oriented core courses (e.g. English, mathematics, Swedish) at a level that is sufficient for entry into higher education. This also makes it possible for vocational students to shift between programmes if they find that they have made a wrong choice. During the second and third year the educa-

tional system provides vocational courses within vocational areas such as construction work, auto mechanics and health care. In addition, a supportive system of second chances is set up (e.g. VET for adults, active labour market policy). This provides opportunities for failing students to come back and finish their studies.

The links between the school-based VET and workplaces are generally weaker compared to VET based on the tradition of apprenticeship (e.g. Denmark). The amount of workplace experience for vocational students is relative small in Sweden. As a consequence, the acquisition of more specialised skills is often the responsibility of the employer. An alternative to apprenticeship is vocational training in classrooms and workshops. They are supplemented by 15 week-period of workplace practice (in many cases lesser in reality). The workplace practice is also a part of a pedagogic curriculum. The vocational teachers are the most important link to working life. They translate the demands of the vocation into everyday reality for students. It is also their obligation to prepare the students for a wider labour market, further education and adult life, i.e. representing a diverse of educational interests (Berner, 2010). However, the social premises for maintaining or developing a vocational identity among teachers and students are quite different in school-based VET compared to the tradition of apprenticeship (Persson Thunqvist & Axelsson, 2012).

The design and content of the vocational programmes has also to be understood in the context of *the decentralised schooling system* in Sweden, where centrally determined objectives for VET are to be implemented by municipalities. The degree of specialisation in different vocational programs, as well as opportunities for facilitating workplace training, vary across municipalities and schools are dependent on the links they have established with private and public organisations and the local business community. Since upper secondary schools compete for students, this creates an educational mix that partly results from the students' choices and preferences in a system of free-school choice.

Internationally, Sweden stands out as a country with a long tradition of egalitarian policies in vocational education and strong expectations about what schools can achieve by way of socialization to work and citizenship. The organised labour movement and the employers' organisations have also played a decisive role in shaping the VET-policy. In particular, large export industries dominating the Swedish economy have for decades required from the educational sector a workforce with a generalist education, that fulfils their requirements of competitive and flexible workforce.

Today, it is quite evident that within the upper secondary educational system the boundaries and inequalities between manual and intellectual labour have not disappeared with previous reforms. Neither have gender divisions disappeared: The gender segregation is extensive in the Swedish labour market. The majority of the current vocational programmes are mono-gendered. The vast majority of technically-oriented programs are male-dominated. The opposite characterises programmes that cover female-dominated sectors (e.g. care).

## *Transitions from the Swedish VET to HE and to the labour market*

The vast majority (over 98%) of compulsory school completers continue directly to upper-secondary school and half enters initial VET. However, despite the many second chances in the Swedish upper secondary system, approximately 25 percent of a cohort do not finish their upper secondary education.

Vocational students face larger difficulties entering the labour force after having completed vocational education than their counterparts in Denmark and Norway. One possible explanation is that the unemployment among young people has been high in Sweden since the recession in the 1990-ies. Currently, around 15 percent of the 20-to-24 year olds in Sweden are neither in school nor in work. This age-group is

more than three times as likely to be unemployed then adult workers (Lindahl, 2011). The majority of youth unemployment starts directly after the secondary schools which in turn suggests that special attention has to be directed at the interaction between VET and labour markets. The unemployment rates and *the speed of transition into the labour market* are also related to the vocational fields of study (SCB, 2012). Students in technically-oriented vocational programs (energy, electricity, construction) have faster access to the labour market compared to students from other vocational programs with a weaker qualification frame and connections to specific occupations (for instance Food, Art and design).

*The number of students entering higher education* has continued to rise since the 1990-ies. Generally, transitions from upper secondary school to university level are frequent but slow. Between 45-50 percent of a cohort start some form of higher education before age 25, but less than half go directly to higher education or within one year after high school graduation. Approximately 6-7 out of 10 (67 % 2010) of the vocational students from a cohort complete upper secondary school and qualify for higher education while approximately 80% do so in the academically oriented programs. Yet, these transitions continue to follow a well-known historical pattern in Sweden where the majority of the students in higher education comes from academic programs, while students in vocational programs generally are more oriented to getting a job after the gymnasium (Högberg, 2009; SCB, 2012). The transition to higher education is particular low (3-7%) in the male-dominated vocational programs that are designed for fairly specific professions (e.g. construction work, electricians), but considerably higher in female-dominated programs, especially within programs that are oriented towards broad vocational fields, such as Art and Media.

## *Current challenges and innovations in Sweden*

The high numbers of youth unemployment, the generally weak connections between upper secondary school and work life, and high levels of drop outs from school have a strong impact on the focus on ongoing educational debates and reforms of VET in Sweden. It is reasonable to say that an overall experience of the integrated VET-system, introduced by the reforms of the 1990-ies, highlights major challenges to fulfil the ambitious educational goals that aimed to give vocational students equal access to higher education and the labour market. Part of the difficulties is that an academically-oriented educational culture has been more or less forced on young people who traditionally would have chosen the vocational track. Many vocational students with low educated parents or immigrant background are unable to cope with the academic parts of the curriculum. On the other hand, it is a widespread opinion that it is difficult to get an attractive job and to make a carrier within the Swedish labour market without, at least, a leaving certificate from the upper secondary school-system, which requires grades in theoretical subjects.

**Innovations:** In 2011, the Swedish government has responded to the challenges outlined above with a series of new reforms and the earlier system of vocational education (i.e., integrated upper secondary school) has been replaced with a modified system with three broad orientations: (a) general education, mainly for those intending to pursue higher education; (b) school-based vocational programmes; (c) workplace-based apprenticeship.

The reformed system aims to ensure that VET students acquire more specific vocational knowledge and skills. At the core of the reform is a clearer distinction between the upper secondary programmes that more specifically focus on: i) preparing students for particular vocations, ii) preparing students for academic higher education (Lundahl, et al, 2010).

Several features of this reform (i.e., the new apprenticeship training, where at least half of the study time takes place in a workplace) can be expected to create possibilities for a more smooth transition from school to work. So far, the reform is rather new and research on the effects of the reform is scarce. Pilot programs in 2008-2011 and early experiences of the reformed vocational programs point to possible positive, as well as negative effects. One possible outcome is that the reformed vocational education can strengthen the connections between school-based VET and work life, while it simultaneously retains a strong theoretical core that is necessary to get access to higher education. In addition, the new apprenticeship programme (within the new VET-system) can be advantageous for school-tired students who want to get a job as soon as possible and do not pursue academic career. Some of the possible problematic outcomes are that deadlocks will increase and the differences related to class, gender and ethnicity exacerbate because young people will have to make carrier decision at a very early stage of their educational and vocational career.

## Norway

**Institutional setup of VET in Norway**

The current Norwegian VET model can be characterized as a combination of a state-controlled school model and a corporatist model, with an apprenticeship system as an integrated part of the formal education system (Skule, Stuart & Nyen 2002; Olsen, Høst & Michelsen 2008). Since 1994, students who have completed primary and lower secondary education have a statutory right to 3 years of upper secondary education. Nearly all students (96-97 per cent) enter upper secondary education directly, following either a vocational programme or a general academic programme. There are nine vocational programmes and three general academic programmes. Around one half of the students enter a vocational programme, while the other half enters a general academic programme.

The main model in the vocational programmes is often called the 2+2-model. The first two years are school-based, followed by two years of apprenticeship in a company. The two-year apprenticeship takes place in a training company and follows a national curriculum. During the apprenticeship period, apprentices are employed by the enterprise. Wages for apprentices are negotiated in collective agreements (Kuczera et al 2008). The training enterprises receive a state grant for each apprentice. The apprenticeship contract is standardised and is signed by the apprentice, the employer and the county authority (ReferNET Norway).

After the first two years in a vocational programme, students may switch from the vocational programme to a third year of supplementary studies in school, thereby qualifying for higher education. The number of VET students choosing this path is increasing. In addition, the dropout rate from vocational programmes is relatively high. As a consequence, only a minority of the students entering a vocational programme actually end up with a trade or journeyman's certificate.

Adults in Norway have an opportunity to achieve the trade- or journeyman's certificate through the experience-based trade certification scheme, as so-called practice candidates. The practice candidates acquire equivalent formal qualifications and receive the same documentation as youths or adults who follow the 2+2-model. Around 6-7000 persons obtain their trade certificate as practice candidates every year. This means that approximately one out of three trade certificates in Norway are acquired through work-based learning. The experience based trade certificate was introduced in the 1950s. In some industries, the expe-

rience-based trade certificate is the most important way of acquiring vocational skills (Skule, Stuart & Nyen 2002).

The VET system in Norway was regulated relatively late, with the first Apprenticeship Act introduced in 1952 (Skule, Stuart & Nyen 2002; Hagen & Skule 2007). Among other regulations, the Apprenticeship Act introduced tripartite institutions with an aim to control and regulate apprenticeships. With the integration of the apprenticeship system in the formal education system, the mandates of the tripartite institutions have been redefined. Today, the social partners have an advisory role in the development and implementation of VET policies at all administrative levels. At the central level, the National Council for Vocational Education and Training advises the Ministry of Education on general issues concerning VET. Nine vocational trade councils give advice on training related to trades within the different vocational programmes. At the regional level, there are county vocational training boards, giving advice on issues related to quality, dimensioning, counseling and regional development (ReferNet Norway).

**Transitions from Norwegian VET to HE and to the labour market**

The completion rate in upper secondary education has remained fairly stable since the 1990s. Five years after entering upper secondary education, between 67 and 70 per cent of the cohort have completed and passed their exams. The dropout rate is higher in vocational programmes than in general academic tracks, but with considerable variation between different vocational programmes. For those who do complete their vocational training, the transition to the labour market seems to be quite effective. Like Denmark, Norway has a low rate of youth unemployment compared to other western countries.[1]

About 20000 persons obtain a trade certificate every year, either through the apprenticeship system or as practice candidates.[2] According to register based studies, 82 per cent of the persons who earned a trade certificate in 2009-2010 were employed in the autumn of 2011. 10 per cent were in education, while 8 per cent were neither employed nor in education (The Education Mirror 2012). A similar register based analysis of those who obtained their trade certificates in 2008-2011 concluded that 85 per cent or more were employed only a few months after their trade or journeyman's examination. Only 1,8 per cent were unemployed three years after their trade examination.[3] There is some variation between different vocational programmes, but the variation is moderate. However, there is considerable variation in the probability of being in full time employment. Within the female dominated health and social care trade, less than 30 per cent were employed in full time position, reflecting the extent of part time work in this sector in general (Nyen, Skålholt & Tønder, forthcoming).

VET programmes in Norway generally do not provide access to higher education. However, there are some exceptions. Again, the opportunities vary between different vocational programmes. Within certain technical programmes, the trade certificate gives access to especially designed engineering courses in higher education institutions. Within most other vocational programmes, students need to return to upper secondary school for a supplementary year in order to qualify for higher education. The number of students who chose this «detour» path is particularly high among vocational students within some trades, like office

[1] http://www.arbeidslivet.no/Internasjonalisering/Finanskrisa/Ungdomsledigheten-i-Europa--fra-vondt-til-verre/

[2] It is also possible to obtain a trade certificate throuch a school-based path, but this option is only followed by a few hundred persons every year).

[3] It should be added that the general unemployment rate in Norway is low, around 3.6 per cent in the 1st quarter of 2013.

and administrative work, ICT service, child care and youth work and health care work (Nyen, Skålholt & Tønder, forthcoming).

**Current challenges and innovations in Norway**

High dropout rates, low esteem among young along with limited access to higher eduation are major challenges in the Norwegian VET system. The dropout problem has received much political focus for a number of years in addition to the lack of apprenticeship places. Presently, the increasing number of student switching from vocational programs to academic programs instead of applying for an apprenticeship is receiving much political and public attention. The reasons and driving forces behind this trend can be found both at the individual and at the societal level. Different policy options are currently being discussed. One proposal in a recent White Paper[4] is to develop more efficient transitions from vocational education to higher education.

The in-depth study project (ISP) is a new subject that was introduced in all vocational programmes in Norway in 2006. When students enter upper secondary VET, the school subjects are organized in broad courses that are not directed towards particular trades or occupations. Within this structure, the ISP represents an opportunity to reintroduce or reinforce the concept of vocation and vocational skill. The schools are encouraged by the state to cooperate with local companies in order to provide more practical training for the students in the school based part of the four year program. The ISP thus cuts across the established institutional division between school and work in the 2+2 model. In that respect it could be considered a pedagogical and institutional innovation with an inherent potential to generate more significant changes in the Norwegian VET model in the long term (Nyen & Tønder 2013).

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